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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,973	07/18/2003	Daniel J. Zillig	58067US002	3008
32692	7590	11/28/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			MATZEK, MATTHEW D	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/622,973	<b>Applicant(s)</b> ZILLIG ET AL.	
	<b>Examiner</b> Matthew D. Matzek	<b>Art Unit</b> 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-36, 47, 49, 51 and 52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-36, 47, 49, 51 and 52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. The amendment dated 9/6/2006 has been fully considered and entered into the Record.

Claims 1-36, 47, 49, 51 and 52 are currently active.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10, 17-24, 47 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Willman et al. (US 2002/0042962).

Willman et al. teach a cleaning wipe comprising a fiber web having opposing faces, which is impregnated with pressure sensitive adhesives (PSA) such as polyacrylates [0107] and block copolymers [0123]. The Examiner takes the position that the tacky material is present at the working surface and at a level greater in the intermediate region than at the working surface as the application means for the adhesive preferably applies at least a substantial amount of the additive at points on the sheet that are "inside" the sheet structure. It is an especial advantage of the three dimensional structures and/or multiple basis weights, that the amount of additive that is in contact with the skin and/or surface to be treated, and/or the package, is limited, so that materials that would otherwise cause damage, or interfere with the function of the other surface, can only cause limited, or no, adverse effects. The presence of the additive inside the structure is very beneficial in that soil that adheres inside the structure is much less likely to be removed by subsequent

wiping action [0178]. The applied publication does not specifically state regions within the fibrous article however the applied article meets the instantly claimed limitations of claims 3-10. The fibrous wipe may contain one or more layers [0241] may be either woven or nonwoven [0053] and made of polyester or polypropylene fibers [0072]. Examiner takes the position that the tacky material (i.e. PSA) coats individual fibers as the article may be a nonwoven that is impregnated with said tacky material. Claim 49 is rejected as the "intermediate region" may be of the applied art may be divided into any number of portions which define approximately one-third thickness of a the fiber web.

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12-14 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Willman et al. (US 2002/0042962).

Although Willman et al. do not explicitly teach the claimed feature of exhibiting a Drag Value of not greater than 2 pounds, it is reasonable to presume that said property is inherent to Willman et al. Support for said presumption is found in the use of like materials (i.e. [PSA impregnated fibrous web with a greater concentration of adhesive in the interior]). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of exhibiting a Drag Value of not greater than 2 pounds would obviously have been present one the Willman et al. product

is provided. Note *In re Best*, 195 USPQ at 433, footnote (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

***Claim Rejections - 35 USC § 103***

4. Claims 1-10, 17-24, 47 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiterer et al. (EP 0 829 222) in view of Willman et al. (US 2002/0042962).

a. Reiterer et al. teach the creation of tack pads comprising nonwoven fabrics impregnated with PSA (Abstract). The nonwoven web may comprise polyester and polypropylene fibers (col. 1, lines 50-57). Reiterer et al. is silent as to having higher concentrations of adhesive in the interior of the tack pad, having different properties at its two opposing faces, the claimed Drag Values and claimed PSA levels.

b. Willman et al. teach a cleaning wipe comprising a fiber web having opposing faces, which is impregnated with pressure sensitive adhesives (PSA) such as polyacrylates [0107] and block copolymers [0123]. The Examiner takes the position that the tacky material is present at the working surface and at a level greater in the intermediate region than at the working surface as the application means for the adhesive preferably applies at least a substantial amount of the additive at points on the sheet that are "inside" the sheet structure. It is an especial advantage of the three dimensional structures and/or multiple basis weights, that the amount of additive that is in contact with the skin and/or surface to be treated, and/or the package, is limited, so that materials that would otherwise cause damage, or interfere with the function of the other surface, can only cause limited, or no, adverse effects. The presence of the additive inside the structure is very beneficial in that soil that adheres inside the structure is much less likely

to be removed by subsequent wiping action [0178]. The applied publication does not specifically state regions within the fibrous article however the applied article meets the instantly claimed limitations of claims 3-10. The fibrous wipe may contain one or more layers [0241] may be either woven or nonwoven [0053] and made of polyester or polypropylene fibers [0072]. Examiner takes the position that the tacky material (i.e. PSA) coats individual fibers as the article may be a nonwoven that is impregnated with said tacky material.

c. Since Reiterer et al. and Willman et al. are all from the same field of endeavor (i.e. fibrous cleaning sheets) the purpose disclosed by Willman et al. would have been recognized in the pertinent art of Reiterer et al.

d. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the tack rag of Reiterer et al. with the multiple layers, impregnant and impregnant distribution of Willman et al. because it is an especial advantage of the three dimensional structures and/or multiple basis weights, that the amount of additive that is in contact with the skin and/or surface to be treated, and/or the package, is limited, so that materials that would otherwise cause damage, or interfere with the function of the other surface, can only cause limited, or no, adverse effects. The presence of the additive inside the structure is very beneficial in that soil that adheres inside the structure is much less likely to be removed by subsequent wiping action [0178, Willman et al.].

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- e. Claim 49 is rejected as the “intermediate region” may be of the applied art may be divided into any number of portions which define approximately one-third thickness of the fiber web.
5. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiterer et al. (EP 0 829 222) in view of Willman et al. (US 2002/0042962) as applied to claim 1 above, and further in view of Truong et al. (EP 1 238 621).
- a. Truong et al. disclose a double-sided cleaning implement comprising a reversible cleaning pad including first and second sides of cleaning web material (Abstract) each having different cleaning materials [0014]. The first and second layers are made of a cleaning web material such as a woven cloth web comprising microfibers, preferably microfibers of polyester and nylon [0039]. The cleaning pad may be composed of three or more layers, wherein the first and second layers form the outer layer [0029]. The cleaning pad of Truong et al. has drag values ranging from 1.25 to 3.33 N (0.28 to 0.75lb<sub>f</sub>) [0058].
  - b. Since Reiterer et al. and Truong et al. are all from the same field of endeavor (i.e. fibrous cleaning sheets) the purpose disclosed by Truong et al. would have been recognized in the pertinent art of Reiterer et al.
  - c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the tack rag of Reiterer et al. with the different cleaning material surfaces and drag values of Truong et al. motivated by the desire to clean dry, damp and wet surfaces as well as scour other surfaces [0014, Truong et al.].

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6. Claims 15, 16, 25-36, 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiterer et al. (EP 0 829 222) in view of Willman et al. (US 2002/0042962) and Truong et al. (EP 1 238 621) as applied to claim 13 above, and further in view of and Tanaka et al. (EP 0822093).

a. Tanaka et al. disclose a cleaning sheet, which comprises a substrate, a pressure-sensitive adhesive (PSA) layer formed on one or both sides of the substrate, and a porous screen disposed on the PSA layer (Abstract). Example 1 of the applied application utilizes a PSA consisting of 2-ethylhexyl acrylate, acrylic acid, and ethyl acetate at a thickness of 30 microns (col. 9, lines 40-48). Using the rule of mixtures the density of the PSA is 0.89695 g/cc, which provides a basis weight of the PSA layer of 26.9 g/m<sup>2</sup> (calculation done by Examiner).

$$0.89695 \text{ g/cc} = 896,950 \text{ g/m}^3 \text{ (density conversion)}$$

$$896,950 \text{ g/m}^3 * 30 * 10^{-6} \text{ m (thickness)} = 26.9 \text{ g/m}^2 \text{ basis weight of PSA layer}$$

b. Since Reiterer et al. and Tanaka et al. are all from the same field of endeavor (i.e. fibrous cleaning sheets) the purpose disclosed by Tanaka et al. would have been recognized in the pertinent art of Reiterer et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the tack rag of Reiterer et al. with the PSA levels of Tanaka et al. motivated by the desire to provide a PSA cleaning sheet with which cleaning can be easily and smoothly conducted highly efficiently while satisfactorily preventing adhesive transfer (col. 3, lines 9-12, Tanaka et al.).



***Response to Arguments***

7. Applicant's arguments filed 9/6/2006 have been fully considered but they are not persuasive.

8. Applicant argues that Willman makes it clear that the polymeric additive is applied after the fibrous sheet has been completely formed and as a result may not be viewed as teaching the cleaning wipe of claim 1 and in particular a tacky material impregnated at a level that is greater in an intermediate region of the fiber web as compared to the working surface. Examiner does not dispute Applicant's assessment as to Willman's application of adhesive following the formation of the fibrous sheet. However, Willman explicitly teaches the *impregnation* of the polymeric additive and makes mention several times that it is important that the outer surface of the fibrous sheet not become too sticky resulting in hand feel that is unacceptable to consumers [0109]. Furthermore, the application of additives to the fibrous sheet results in at least a substantial amount of the additive at points on the sheet that are "inside" the sheet structure [0177] (i.e. the intermediated region of the fiber web would contain more adhesive as compared to the working surface). The presence of the additive inside the structure is very beneficial in that soil that adheres inside the structure is much less likely to be removed by subsequent wiping action.

9. Applicant admits that Willman attempts to address the same cleaning wipe problems identified and addressed by Applicant, but does so in an allegedly different manner. Applicant argues that Willman attempts to create a delicate balance between adhesive additives on the cleaning sheet in combination with the selected additive materials or creates a series of polymeric additive zones on an exterior of the cleaning sheet in an attempt to minimize glide

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resistance. Examiner agrees that Willman has attempted to create an article with a balance between adhesive additives on the cleaning sheet in combination with the selected additive material and create a series of polymeric additive zones on an exterior cleaning sheet. Examiner is also of the opinion that Willman sets forth teaching the impregnation of polymeric additive in a fibrous article with less adhesive at the working surface than in its interior as described in paragraph 8 of this Office Action.

10. Applicant argues that paragraph 178 of Willman merely reflects the multiple considerations that Willman must take into account when attempting to balance the polymeric additive components and coating levels and that the aforementioned paragraph cannot be viewed as teaching or suggesting the limitations of claim 1. As established supra, Examiner believes that Willman does in fact teach all of the limitations of instant claim 1.

11. Applicant argues that the rejections made over Reiterer in view of Willman cannot meet the instant limitations because neither disclosure teaches a higher level of tacky material at an interior of the fiber web. As set forth supra, Examiner feels that Willman meets this limitation.

12. Applicant argues that the calculations relied upon from Tanaka do not equate to the limitations of claims 15 and 16 in that the Tanaka adhesive level is based upon a dry weight calculation. Examiner agrees that the Tananka calculation is based upon a dry basis, but fails to see how it being based upon a dry weight basis of the PSA causes the adhesive layer to not meet that of the instant limitations.

13. Applicant argues that in order to modify Reiterer in view of Tanaka the teachings of Willman as a whole must be considered, which teaches a polymeric additive level of less than 10 g/m<sup>2</sup>. Examiner has considered each of the references and their teachings and agrees that the

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teachings of Tanaka and Willman do conflict. However, the base reference itself teaches polymeric additive rates that exceed those of Willman and meet those of instant claims 15 and 16 (col. 6, lines 13-21). Willman has been relied upon for the concept of higher adhesive levels in the interior of the fibrous article, but not its adhesive levels.

14. Applicant argues that the adhesive of Truong is not relied upon to retain contaminants during cleaning, but instead to present an abrasive to the surface being cleaned, which is in direct contradiction to adhesive usages of Reiterer and Willman. As such, the Drag Values produced in Truong have no bearing on the cleaning wipes described in Reiterer and Willman, therefore there is no motivation to modify the invention of Reiterer/Willman in view of Truong to attain the Drag Values of Truong. Applicant continues by asserting that if such a combination were to be made the exposed tacky material would necessarily be eliminated in direct opposition to the teachings of Reiterer and Willman. Examiner has relied upon the teaching of Truong to set forth acceptable Drag Values for cleaning implements. As disclosed in paragraph 4, a cleaning implement exhibiting high drag is particularly disadvantageous and therefore acceptable Drag Values that still permit effective cleaning. Examiner has not relied upon the abrasive facing teaching or the specific use of adhesive in this rejection. Examiner has looked to cleaning implements to provide appropriate Drag Values that permit effective cleaning while not adversely affecting the user or the surface being cleaned.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Norca L. Torres-Velazquez  
Primary Examiner  
Art Unit 1771

November 20, 2006